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17		Applic	cation Number	10/618,043			
TRANSMITTAL			Date	July 11, 2003			
FORM		First I	Named Inventor	Serati, Steve			
(to be used for all correspondence after	initial filing)	Art Ur	nit				
Examiner Name Not yet known							
Total Number of Pages in This Submission		ey Docket Number	040131-000100US				
ENCLOSURES (Check all that apply)							
Fee Transmittal Form	☐ Drawin	g(s)		After Allowance Communication to Group			
Fee Attached	Licensi	ng-relate	ed Papers	Appeal Communication to Board of Appeals and Interferences			
Amendment/Reply	Petition			Appeal Communication to Group (Appeal Notice, Brief, Reply Brief)			
After Final		to Conv		Proprietary Information			
Affidavits/declaration(s)	Power of Change	of Attorn of Corr	Status Letter				
Extension of Time Request			imer	Other Enclosure(s) (please identify below):			
Express Abandonment Request			und	Return Postcard, copies of nineteen (19) cited			
☐ CD, Number of CD(s)  ☐ Information Disclosure Statement							
Certified Copy of Priority Document(s)  The Commissioner is authorized to charge any additional fees to Depression of the Commission of th							
Response to Missing Parts/							
Incomplete Application  Response to Missing Parts							
under 37 CFR 1.52 or 1.53							
SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT  Firm Townsend and Townsend and Crew LLP							
or Individual Patrick M. Boucher Reg. No. 44,037							
Signature Paty Her							
Date 2003 Odde 30							
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hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage is first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.							
Typed or printed name Nicole M. Wartell							
Signature	200	Di	to	Date 10/30/03			

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on <u>Oct 30,2003</u>

TOWNSEND and TOWNSEND and CREW LLP

Nicole M. Wartell

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Steve Serati et al.

Application No.: 10/618,043

Filed: July 11, 2003

For: NONMECHANICAL

WAVELENGTH-INDEPENDENT

**BEAM STEERER** 

Examiner: Not yet known

Art Unit:

NOV 0 3 2003

INFORMATION DISCLOSURE

STATEMENT UNDER 37 CFR §1.97 and

§1.98

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. U.S. patents are not enclosed in accordance with the Patent Office waiver issued August 5, 2003 in the Official Gazette, which states as follows:

The Office hereby waives the requirement under 37 CFR 1.98

(a)(2)(i) for submitting a copy of each cited U.S. patent and each U.S. patent application publication for all U.S. national patent applications filed after June 30, 2003 and for all international

Steve Serati et al.

Application No.: 10/618,043

Page 2

applications that have entered the national stage under 35 USC 371

after June 30, 2003. See 37 CFR 1.491(b).

In accordance with 37 CFR 1.98(a)(2), copies of the non-patent literature

references are enclosed. It is respectfully requested that the cited references be expressly

considered during the prosecution of this application, and the references be made of record

therein and appear among the "references cited" on any patent to issue therefrom.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the

information and references cited are prior art merely because they are in this statement and no

representation is being made that a search has been conducted or that this statement encompasses

all the possible relevant information.

Applicant believes that <u>no fee is required</u> for submission of this statement.

However, if a fee is required, the Commissioner is authorized to deduct such fee from the

undersigned's Deposit Account No. 20-1430. Please deduct any additional fees from, or credit

any overpayment to, the above-noted Deposit Account.

Respectfully submitted,

PATENT

Patrick M. Boucher

Reg. No. 44,037

Polish Den

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San Francisco, California 94111-3834

Tel: 303-571-4000 Fax: 303-571-4321

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PTO/SB/08A (08-03)

Substitute for form 1449A/PTO	EMB	C mplete if Known
	Application Number	10/618,043
INFORMATION DISCLOSURE	Filing Date	July 11, 2003
STATEMENT BY APPLICANT	First Named Inventor	Serati, Steve
	Art Unit	
(use as many sheets as necessary)	Examiner Name	Not yet known
Sheet 1 of 3	Attorney Docket Number	040131-000100US

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U.S. PATENT DOCUMENTS+						
		Document Number				
Examiner Initials*	Cite No.1	Number Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	A1	US-5,059,008	10-22-1991	Flood et al.		
	A2	US-5,825,523	10-20-1998	Amitai		
	A3	US-6,480,334	11-12-2002	Farn		

Signature Considered Considered
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MON 0 3 5003 Substitute for form 1449B/PTO

INFORMATION DISCLOSURE

INFORMATION DISCLOSURE Complete if Known Application Number 10/618,043 Filing Date July 11, 2003 STATEMENT BY APPLICANT First Named Inventor Serati, Steve Art Unit (use as many sheets as necessary) Examiner Name Not yet known 2 3 Sheet Attorney Docket Number 040131-000100US

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	C1	A.F. FRAY and D. JONES "Large-angle beam deflector using liquid crystals," Electron. Lett.; August 1975, pp. 358-359, Vol. 15, No. 16.	
	C2	J.U. WHITE "Very long optical paths in air," Journal of the Optical Society of America, May 1976, pp. 411-416, Vol. 66, No. 5.	
	СЗ	A. SASAKI AND T. ISHIBASHI, "Liquid-crystal light deflector," Electron. Lett., March 1979, pp. 293-294, Vol. 15, No. 10.	
	C4	W. GOLTSOS AND M. HOLTZ, "Agile beam steering using binary optics microlens arrays," Opt. Eng., Nov. 1990, pp. 1392-1397, vol. 11, no. 29.	
	C5	P. F. MCMANAMON, E. A. WATSON, T. A. DORSCHNER, AND L. J. BARNES, "Applications look at the use of liquid crystal writable gratings for steering passive radiation," Opt. Eng., Nov 1993, pp. 2657-2664, Vol. 32, No. 11.	
	C6	E. A. WATSON AND L. J. BARNES, "Optical design considerations for agile beam steering," SPIE Vol. 2120 Laser Beam Propagation and Control (1994), pp. 186-193.	
	C7	E. A. WATSON, P. F. MCMANAMON, L. J. BARNES, AND A. J. CARNEY, "Applications of dynamic gratings to broad spectral band beam steering," SPIE Vol. 2120 Laser Beam Propagation and Control (1994), pp. 178-185.	
	C8	R. M. MATIC, "Blazed phase liquid crystal beam steering," SPIE Vol. 2120 Laser Beam Propagation and Control (1994), pp. 194-205.	
	C9	B. L. ANDERSON, S. A. COLLINS, C. A. KLEIN, E. A. BEECHER AND S. B. BROWN, "Highly parallel optical true time delay device for phased array antennas," Proceedings of The Sixth Annual ARPA Symposium on Photonic Systems for Antenna Applications, Monterey CA. (March 7, 1996)	
	C10	P. F. MCMANAMON, ET. AL., "Optical Phased Array Technology," Proceedings of the IEEE, Feb 1996, pp. 268-298, Vol. 84, No. 2.	
	C11	L. J. FRIEDMAN, D. S. HOBBS, S. LIEBERMAN, D. L. CORKUM, H. Q. NGUYEN, D. P. RESLER, R. C. SHARP, AND T. A. DORSCHNER, "Spatially resolved phase imaging of a programmable liquid-crystal grating," Applied Optics, Nov. 1996, pp. 6236-6240, Vol. 35, No. 31.	\
	C12	S. SERATI AND J. STOCKLEY, "Advanced Liquid Crystal on Silicon Optical Phase Arrays," 2002 IEEE Aerospace Conference - Paper 5.0301 (2002).	
	C13	P. F. MCMANAMON AND W. THOMPSON, "PAPA Array of Phased Arrays (PAPA) Laser Systems Architechure," 2002 IEEE Aerospace Conference - Paper 5.0601 (2002).	
	C14	E. A. WATSON AND L. J. BARNES, "Implementing Optical Phased Array Beam Steering with Cascaded Microlens Arrays," 2002 IEEE Aerospace Conference - Paper 5.0306 (2002).	
	C15	J. STIGWALL, "Optimization of a Spatial Light Modulator for Beam Steering and Tracking Applications," Thesis – Department of Physics and Measurement Technology, Linköping University (2002)	

Examiner	Date	
Signature	Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.

Substitute for form 1449B/P				Complete if Kn wn		
		TB.	ADENI	Application Number	10/618,043	
			CLOSURE	Filing Date	July 11, 2003	
STAT	EMENT E	BY A	PPLICANT	First Named Inventor	Serati, Steve	
		•		Art Unit		
(1	ıse as many sl	heets as	s necessary)	Examiner Name	Not yet known	
Sheet	3	of	3	Attorney Docket Number	040131-000100US	

	NON PATENT LITERATURE DOCUMENTS						
Examiner Initials *	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T 2				
	C16	J. STOCKLEY AND S. SERATI, "Cascaded One-dimensional Liquid Crystal OPAs for Beam Steering in Two Dimensions," 2003 IEEE Aerospace Conference - Paper 5.0701 (2003).					
	C17	E. J. HAELLSTIG, J. STIGWALL, M. LINDGREN AND L. J. SJOQVIST, "Laser beam steering and tracking using a liquid crystal spatial light modulator," Proceedings of SPIE Vol. 5087 Laser Systems Technology (2003).					
	C18	S. R. HARRIS, "Numerical optimization of the performance of nematic liquid crystal optical phased arrays," Proceedings of SPIE Vol. 5162 Advanced Wavefront Control: Methods, Devices, and Applications (2003).					
	C19	S. R. HARRIS, "Polarization effects in nematic liquid crystal optical phased arrays," Proceedings of SPIE Vol. 5213 <i>Liquid Crystals VII</i> (2003).					

Examiner	Date	
Signature	Considered	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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